TCE/301/85

International
Marketing Information
Series

Colombia

CMS/TCE/301/85. March 1986

CMS

Country Market Survey

NEWARK PUBLIC LIBRARY

APR 21 1986

U. S. GOVT. PUBS.
DEPOSITORY 329

Telecommunications Equipment

Colombia

best copy available

U.S. DEPARTMENT OF COMMERCE
International Trade Administration

C61.9:

An improving economy and continued momentum in public development projects are combining to give Colombia modest but steady growth in its telecommunications equipment market. Purchases are projected to rise about 3.5 percent per year to 1986 after a severe drop in 1984 occasioned by recession and restrictive import policies (see table 1 and figure 1).

The economy is expected to benefit in the 1983-86 period from improved private investment under economic policies instituted by the new government that assumed power in 1981. Under the National Integration Plan, improvements are slated for both highway and communications infrastructure in rural areas still untouched by economic development. The National Development Plan for 1983-86 calls for:

- Installation of 981,000 telephone lines
- Increase of telegraphic offices to 2,550
- Expansion and improvement of the telex system from 7,462 to 13,127 lines and of the gentex system from 1,170 to 2,100 lines
- Addition of 10,350 domestic long-distance and 720 international circuits in the major cities

Under the Second Rural Telephone Program, financed in 1982 by the Inter-American Development Bank, projects are underway to install telephones in 1,500 remote rural communities and to expand urban telephone service in an additional 277 municipalities.

Sales prospects are projected to improve for American manufacturers as Colombia assumes a larger role in the world telecommunications scene. Strong competition is expected from Japanese and European suppliers, however, which often can offer better financing and credit terms.

Product Markets

Telephone and telex equipment accounted for the bulk of imports between 1979 and 1983 and is expected to continue as the most important product category in the 1984-86 period. Automatic switchboards and exchanges made up almost 53 percent of overseas purchases; telephone sets and telephonic and telegraphic apparatus each accounted for about 5 percent. Major local exchange expansions are planned in the large cities of Bogota, Medellin, Barranquilla, and Cali, including the addition of 41,100 new long-distance switching terminals and 700 international long-distance switching trunks. Sales prospects are excellent for computer-controlled electronic switching (digital) to replace electromechanical central offices (analog), as well as private branch telephone exchanges, telephones, and teleprinters.

Purchases of **transmission equipment** are projected for both the large cities and the rural telephone project. In the rural program, a transmission equipment contract for $25 million is slated for award in late 1985. Strong demand is predicted for microwave equipment and its associated multiplex equipment, as microwave transmission is an economical method for moving a large number of voice, video, and data signals. Important buyers of transmit-receive equipment have included the Centro Internacional de la Cana de Azucar, Ericsson de Colombia, Flota Mercante Grancolombiana, Instituto Colombiano de la Reforma Agraria, and Radiotec Ltda.

Imports of **Mobile radio equipment** constitute less than 1 percent of total imports and declined in importance between 1979 and 1983. But demand is expected to increase in coming years for use by aviation, marine, public safety, industrial, land transportation, and individual end users.

Three developments are predicted to increase demand for **video and radio broadcasting equipment:** the establishment of a third government television broadcasting channel with nationwide coverage, the introduction of cable television, and the setting up of regional television channels. Colombia had 68 TV sets per 1,000 population in 1983 and uses NTSC color encoding. Cable television is expected to revolutionize Colombia's communication and information systems by making possible videotext, teletext, data transmission, and even telebanking, telepurchasing, video-telephone, and burglar, fire, or flood alarms.

Trade sources foresee rising sales of **data transmission equipment** due to the conversion of telephone equipment from analog to digital. **Communications test equipment** is also a promising sales prospect.

Telecommunications authorities had budgeted expenditures of $277.8 million in the 1984-88 period for **satellite transmission equipment** for the SATCOL satellite program, but the project was turned down by the new administration just prior to the awarding of an international public tender for the construction of the satellites. SATCOL was designed to be a domestic satellite communications system with 24 transponders to provide 10,000 to 15,000 telephone circuits for urban areas, 600 circuits for rural telephony, 2 TV channels, and 1 military transponder.

Consulting and engineering **services** are provided domestically by graduates of 20 schools in which electronics and systems engineers and communications technicians are trained. About 5,000 of the country's 30,000 engineers are licensed electronics and systems engineers. To operate in Colombia, U.S. consulting or engineering firms must establish a local branch or have a legal representative. The representa-

Sources: IMI Market Study, prepared by U.S. and Foreign Commercial Service, Bogota, Colombia, December 1984 (see Additional Information box), and desk research.

Note: All values are given in U.S. dollars. Local currency is converted at the following exchange rates: US$1 = 47.28 pesos (1980), 54.49 pesos (1981), 64.09 pesos (1982), and 87.83 pesos (1983 and subsequent years). Values for 1983 and later years are given in 1983 constant dollars.

Table 1.—Colombia: The market for telecommunications equipment, 1980-84 and 1986
(in million of U.S. dollars)

	1980	1981	1982	1983	1984	Projected 1986
Production	75.10	81.80	64.20	50.00	45.00	50.0
Imports	115.22	109.25	125.57	153.14	53.00	100.0
Exports (less)	1.35	1.34	1.24	.29	.90	1.3
Total	188.97	189.71	188.53	202.85	97.10	148.7
Imports from United States	17.82	17.82	15.58	18.11	7.95	20.0
U.S. share — (percent)	15.46	14.20	14.42	11.76	15.00	20.0

Note: Table includes figures relating to some items only peripherally related to telecommunications, such as phonograph records.
Source: Colombian Department of Statistics (DANE)—"Foreign Trade Yearly Report," 1978-83, and IMI market study, U.S. and Foreign Commercial Service, Bogota (see Additional Information box).

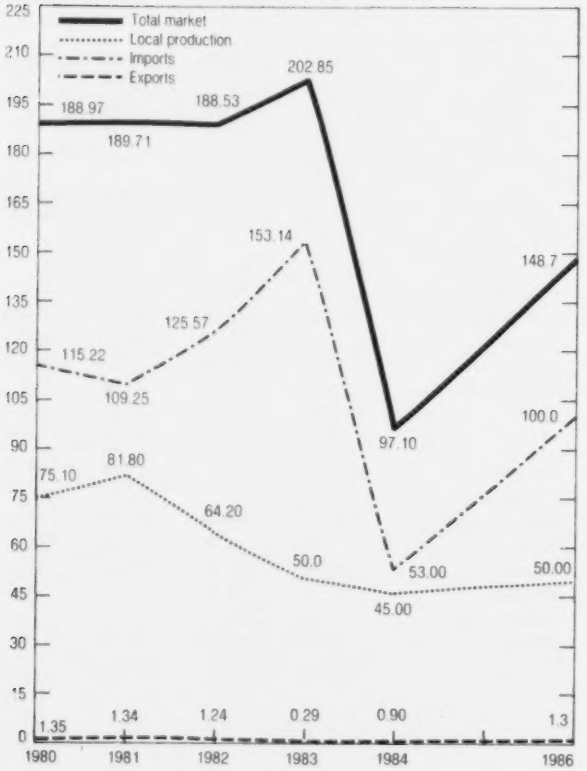
tive can be a foreigner but must be a legal resident with a license to practice in the country.

Competitive Assessment

Imports make up 50-75 percent of the market for telecommunications equipment. With suppliers in Sweden, Germany, France, and Japan accounting for nearly 70 percent of overseas purchases (see table 2). Ericsson (Sweden) and Siemens (Germany) compete almost entirely through domestic subsidiary operations and licensing agreements. Japanese and French companies have entered the market aggressively with help from their Governments.

Figure 1
Colombia: The market for telecommunications and related equipment, 1980-86

(in millions of U.S. dollars)



Major third-country suppliers of transmission circuits include Ericsson, NEC and Fujitsu/Compel (Japan), and Plessey (United Kingdom). Local automatic dial systems, and switching trunk systems for long-distance service, come mainly from Ericsson, and telex equipment and telephones for Siemens. Telephones are also purchased from NRC and National Panasonic (Japan), Ericsson, and Philips (Netherlands).

Local production is increasing in value but is confined to fairly simple equipment such as amplifiers, antennas, telephone sets, radio and TV sets, and wire and cable (see table 3). Since the Government eased restrictions on foreign investment, increases are expected in domestic production and/or assembly of telephone sets and exchanges, subscriber and transmission equipment, line plant and cable, telephone instruments, color TV and sound sets, and other equipment. ITT de Colombia and GTE de Colombia have already been active for about 20 years with limited assembly operations. FACOMEC (a subsidiary of L.M. Ericsson), CEAT General (a subsidiary of CEAT of Italy), and Siemens are involved in the wiring of switching equipment and manufacture telephone cables.

Exports claim less than 2 percent of local production but are encouraged by government programs including export subsidies (the Tax Reimbursement Certificate), elimination of import duties and taxes on raw materials for exported products (the Plan Vallejo System), and commercial promotion efforts and credit lines (the Export Promotion Fund). Over half the exports are bound for Venezuela (see table 4), with Ecuador and Panama the other major destinations.

Shipments from the United States account for 12-15 percent of foreign purchases, and are predicted to claim 20 percent of 1986 imports. American items are dominant in some categories: fixed and mobile radiotelegraphic and radiotelephonic apparatus, data communications systems, and radio broadcasting equipment. The products are competitive in quality

Table 2.—Columbia: Imports of telecommunications equipment by country, 1980-83
(in thousands of U.S. dollars)

	1980	1981	1982	1983
Telephone sets				
United States	525.90	277.02	500.20	184.72
Italy	72.82	340.64	2,987.73	901.13
Japan	75.40	52.56	783.46	776.36
Belgium/ Luxembourg	1,156.17	873.03	1,420.98	743.65
Germany	4,188.68	5,212.44	1,252.42	643.25
Others	1,421.98	1,584.39	692.58	590.54
Total	7,440.95	8,340.08	7,637.37	3,839.65
Nonautomatic switchboards and exchanges				
United States	37.30	55.44	76.60	24.15
Japan	64.86	104.23	178.46	2,979.20
Germany	1.62	3.86	36.17	157.64
Korea	19.34	182.88	278.32	101.02
Brazil	585.78	668.32	242.79	57.37
Others	410.89	249.31	523.35	46.20
Total	1,119.79	1,264.04	1,335.69	3,365.58
Automatic switchboards and exchanges				
United States	3,712.14	1,756.96	1,472.69	812.52
Japan	10,646.12	11,645.55	13,607.66	41,655.52
Sweden	20,961.72	22,960.49	31,768.65	29,927.57
Germany	2,012.26	3,916.54	2,566.51	7,537.73
France	7,648.78	9,117.45	5,548.41	5,966.10
Others	10,991.00	8,705.09	4,789.33	7,272.35
Total	55,972.02	58,102.08	59,753.25	93,171.79
Other electrical line telephonic and telegraphic apparatus				
United States	363.15	162.52	839.52	283.80
Sweden	740.18	1,292.37	2,269.01	1,595.87
Belgium/ Luxembourg	1,766.87	4,426.17	3,618.67	1,246.11
Brazil	1.04	58.93	529.76	454.49
Japan	445.23	647.97	148.27	245.61
Others	433.01	697.44	985.54	259.38
Total	3,749.48	7,285.40	8,390.77	4,085.26
Telegraphic apparatus				
United States	362.28	301.80	347.81	391.69
Germany	30.40	403.86	2,126.64	796.99
Canada	26.68	—	14.25	127.52
United Kingdom	206.95	99.32	—	97.70
Sweden	—	311.46	53.80	44.46
Others	916.62	981.76	368.02	65.88
Total	1,542.93	2,098.20	2,910.52	1,524.24
Apparatus for carrier-current line systems				
United States	323.56	104.88	354.59	1,469.30
Germany	149.68	922.48	4,049.94	3,203.36
Japan	4,089.04	1,677.45	228.16	2,429.97
United Kingdom	—	—	—	584.06
Switzerland	—	—	388.81	379.81
Others	2,738.04	1,113.92	226.76	390.91
Total	7,300.32	3,818.73	5,248.26	8,457.41
Parts for electrical line telephonic/ telegraphic apparatus				
United States	425.69	481.61	748.01	1,438.59
Germany	271.71	387.44	1,868.41	2,028.46
Japan	1,394.82	769.08	456.15	1,557.22
Sweden	731.01	408.96	1,398.24	1,411.12
Belgium/ Luxembourg	124.36	499.81	977.95	585.88
Others	749.37	704.10	1,476.80	1,272.04
Total	3,696.96	3,251.00	6,925.56	8,293.31
Radio telegraphic/ telephonic transmission apparatus				
United States	1,497.88	2,421.00	2,586.96	4,619.03
Brazil	—	—	16.37	879.62
Japan	96.07	212.03	176.89	580.13
Canada	6.78	10.09	—	53.73
Sweden	—	—	159.98	44.92
Others	169.53	217.16	285.10	52.43
Total	1,770.26	2,860.28	3,225.30	6,229.86
Other radio telegraphic/ telephonic transmission apparatus				
United States	2,902.64	993.95	917.68	2,725.12
Japan	75.03	731.42	151.49	263.01
Germany	2,775.74	691.48	397.60	70.97
Sweden	98.64	144.37	149.77	46.60
Canada	1.84	9.84	13.46	36.20
Others	3,911.34	996.04	382.95	155.44
Total	9,765.23	3,567.10	2,012.95	3,297.34
Radio-broadcasting transmission apparatus				
United States	1,010.20	2,297.49	1,576.92	1,026.43
France	872.54	—	104.79	—
Germany	—	10.32	6.45	—
Japan	5.53	—	.43	
Panama	223.76	—	—	—
Others	209.26	141.70	—	—
Total	2,321.29	2,449.51	1,688.59	1,026.43
TV-broadcasting transmission apparatus				
United States	122.12	435.05	129.71	39.74
Germany	—	229.79	96.24	114.41
Italy	13.29	26.22	8.24	9.03
Switzerland	8.75	9.92	11.70	—
Spain	4.76	—	11.51	—
Others	18.49	179.13	5.06	23.87
Total	167.41	880.11	262.46	187.05
TV cameras				
United States	149.16	265.99	509.35	26.34
Japan	1.32	1.35	79.45	308.51
Panama	330.35	265.27	179.94	10.44
Germany	29.04	29.55	—	4.06
France	—	296.18	—	
Others	33.92	195.30	31.06	
Total	543.79	1,053.64	799.80	349.35

Table 2.—Columbia: Imports of telecommunications equipment by country, 1980-83 (continued)
(in thousands of U.S. dollars)

	1980	1981	1982	1983
Radio receivers for vehicles				
United States	230.08	293.14	409.08	107.92
Japan	53.79	26.59	15.10	405.65
Sweden	—	.55	—	24.31
Germany	24.39	20.38	28.31	18.51
Canada	—	.21	26.13	15.02
Others	1,504.14	413.80	129.95	129.20
Total	1,812.40	754.67	608.57	700.61
Other radio receivers				
United States	399.41	393.85	488.86	280.56
Japan	87.48	183.79	1,579.05	1,394.16
Hong Kong	117.30	121.13	62.05	194.02
Panama	474.09	479.45	2,031.31	96.72
South Korea	2.42	.72	—	88.05
Others	631.34	287.40	68.60	115.85
Total	1,712.04	1,466.34	4,229.87	2,169.36
Black and white TV sets				
United States	39.41	—	129.97	11.10
Japan	.99	—	41.17	95.25
Panama	309.81	—	55.38	14.88
Taiwan	—	—	3.98	.69
Belgium/ Luxembourg	.18	—	—	
Others	—	—	.98	2.56
Total	350.39	—	231.48	124.48
Color TV sets				
United States	584.20	213.27	774.95	
Panama	873.48	221.41	312.38	
Japan	469.35	81.16	246.61	
Taiwan	16.23	1.85	3.64	
France	59.79	127.11	3.24	
Others	226.20	231.42	97.86	
Total	2,229.25	876.22	1,438.68	
Radio navigation aid, radar and radio remote control apparatus				
United States	159.14	—	621.00	
Japan	—	—	.77	
France	162.42	—	—	
Taiwan	3.87	—	—	
Peru	1.81	—	—	
Others	285.07	—	—	
Total	612.31	—	621.77	
Ferrite aerials parts				
United States	2.52	—	17.52	4.77
Japan	.42	—	6.42	15.29
Netherlands	2.86	—	—	.92
Panama	15.21	—	20.18	—
Taiwan	.69	—	—	—
Others	.50	—	.46	—
Total	22.20	—	44.58	20.98
Cases, cabinets and parts for transmission and reception apparatus				
United States	124.84	91.37	211.51	137.34
Japan	402.26	563.14	467.09	1,030.02
Brazil	51.32	116.67	145.95	126.83
Taiwan	37.04	46.46	43.71	71.85
Singapore	—	2.97	—	4.94
Others	484.65	409.83	862.63	119.13
Total	1,100.11	1,230.44	1,730.89	1,490.11
Insulated electric wire-cable bars and telephone cables				
United States	1,371.14	1,444.46	169.55	1,098.24
Netherlands	—	—	1,616.88	2,230.30
Brazil	.21	234.00	3,055.11	1,710.15
Sweden	218.29	48.37	205.70	98.00
Japan	1.51	.45	.58	93.31
Others	45.96	172.17	196.93	66.99
Total	1,637.11	1,899.45	5,244.75	5,296.99
Sound recorders				
United States	32.49	—	74.49	43.80
Japan	—	—	3.30	41.58
Panama	138.80	—	125.91	—
Netherlands	—	—	5.01	—
Norway	.79	—	—	—
Others	—	—	.15	9.36
Total	172.08	—	208.86	94.74
Sound recorders with one recording head				
United States	17.25	—	48.01	2.56
Japan	—	—	1.25	131.87
Panama	103.27	—	50.84	2.81
Others	—	—	—	21.27
Total	120.52	—	100.10	158.51
Combined sound recorders and reproducers				
United States	176.91	509.86	255.04	227.01
Japan	114.11	123.73	125.28	539.88
Panama	858.78	437.30	381.45	85.67
Taiwan	11.02	—	22.76	45.14
Germany	2.18	8.31	—	1.55
Others	139.60	85.97	6.26	26.01
Total	1,302.60	1,165.17	790.79	925.26
Combined TV image and sound recorders/ reproducers				
United States	437.34	651.31	1,747.71	136.93
Japan	63.84	91.54	244.43	1,670.32
Panama	1,217.55	580.02	1,158.55	206.91
Spain	—	—	2.19	
Netherlands	—	1.74	—	
Others	119.87	116.55	1.72	3.06
Total	1,838.60	1,441.16	3,154.60	2,017.22
Combined totals	108,300.04	103,803.62	120,595.46	146,825.53

Source: Colombian Department of Statistics (DANE), and International Trade Administration reesearch report.

and have a good reputation for advanced technology but are sometimes considered high-priced and suffer from poor marketing and aftersales service.

American vendors can improve their position by:

- Being alert to bidding invitations
- Concentrating their efforts and promotional resources on major development projects
- Registering with government agencies to participate in both international and private tenders
- Aggressively seeking subsidized credit sources to compete with European, Canadian, and Japanese companies
- Placing emphasis on local assembly and manufacturing
- Replying immediately to quotation inquiries
- Delivering within the validity period of the Import License Registration

End Users

Public utilities.—The 35 publicly owned companies that operate the local telephone services are by far the largest buyers of communications equipment. Empresa Nacional de Telecomunicaciones (TELECOM), an autonomous government-owned company established in 1947, operates the telephone and telegraph long-distance and international services, the national telex service, and maritime communications.

With the exception of Radiodifusora Nacional, the only station owned by the Government, radio broadcasting is dominated by private enterprise. TV broadcasting facilities, consisting of three channels, are owned and controlled by the Government through INRAVISION (the National Radio and Television Institute) but are operated by private firms under lease arrangements.

Other government agencies affecting telecommunications are: the Ministry of Communications, which regulates the sector (including frequency management), provides technical advice, and sets rates; the National Planning Department, which sets priorities and reviews investment plans of the operating entities; and the Ministry of Finance, which approves suppliers' terms and conditions, local and foreign credits, and contracts.

TELECOM, which employs 15,000 people, is governed by a 10-member board of directors, with the Minister of Communications as ex officio chairman. The president of the company is assisted by six vice presidents and seven regional managers in Bogota, Medellin, Cali, Barranquilla, Bucuramanga, and Ibague. TELECOM's Fourth Telecommunications Project, covering the years 1978-86, is estimated to cost $410 million. Financing has come from the World Bank ($60 million), the Inter-American Develpment Bank ($29 million), and foreign commercial sources ($103 million).

Colombia now has 5.8 telephone lines per 100 people, a local automatic dial installed capacity of 1,604,830 lines, a basic transmission network of 15,000 channels (10,000 microwave) used for intercity long-distance, 50,000 switching trunks, and 7,462 telex lines in operation (see table 5). International communications rely on two tracking parabolic antennas located in Choconta, 48 miles northeast of Bogota, which relay international telephone calls, TV programs, telegraph, and telex messages. A submarine cable rented jointly with Venezuela and microwave radio facilities are also in use.

Future projects now being discussed are a $13.5 million TDMA/DSI system to enable the TELECOM earth receiving stations to work with the Intelsat VI generation of satellites, and an additional $12 million microwave link between the Choconta earth receiving station and the Bogota international exchange. Conversations are also underway to reactivate the Andean Regional Telecommunications Satellite Sys-

Table 3.—Colombia: Local production by selected product category, 1980-82
(in thousands of U.S. dollars)

	1980		1981		1982	
	Units sold	Sales value	Units sold	Sales value	Units sold	Sales value
Radio receivers	3,289	286	1,561	114	302	27
Television sets	102,589	27,391	120,438	45,897	118,236	37,266
Radio telephonic equipment	880	586	695	478	727	446
Amplifying equipment	13,537	4,304	4,698	1,839	4,649	1,690
Parts for radio receivers		160	—	22	—	26
Radio antennas	3,908	73	4,104	51	841	10
Television antennas	60,842	747	90,642	1,018	92,081	987
Radio and TV condensers and transformers	68,554	502	N/A	N/A	N/A	N/A
Parts and accessories for telephone and telegraph	—	3,810	—	1,488	N/A	N/A
Recording matrices	1,376	34	1,624	82	2,057	59
Parts and accessories for other radio and TV equipment	60,748	N/A	N/A	4,489	N/A	3,078
Telephone switchboards			348	81	251	46
Total		37,893		55,559		43,635

Source: National Administrative Department (DANE) Annual Reports, 1980-82.

tem (CONDOR) Project, with possible purchase of a satellite by 1988.

The Empresa de Telefonos de Bogota (ETB), the Cali Municipal Utilities Company (EMCALI), the Empresas Departamentales de Antioguia (EDA), and the Empresas Publicas de Medellin (EPM) also have major expansion plans that present good opportunities for U.S. suppliers in 1985-86. Purchasing decisions are made separately by each operating entity; no central coordination body standardizes equipment.

Table 4.—Colombia: Exports of telecommunications equipment by country, 1980-83
(in thousands of U.S. dollars)

	1980	1981	1982	1983
Telephone sets				
Ecuador	—	3.60	—	
Total	—	3.60	—	
Nonautomatic switchboards and exchanges				
Panama	50.50	93.50	—	
Venezuela	11.10	—	—	
Total	61.60	93.50	—	
Automatic switchboards and exchanges				
United States	—	—	54.68	
Total	—	—	54.68	
Other electrical line telephonic and telegraphic apparatus				
Venezuela	1.20	—	—	
Total	1.20	—	—	
Apparatus for carrier-current line systems				
Norway	—	—	30.50	
Total	—	—	30.50	
Parts for electrical line telephonic/ telegraphic apparatus				
United States	—	77.99	49.98	—
Sweden	—	64.73	—	39.25
Panama	—	—	.75	—
Brazil	23.00	—	—	—
Belgium/ Luxembourg	—	21.69	—	—
Total	23.00	164.41	50.73	39.25
Radio telegraphic/ telephonic transmission apparatus				
Venezuela	—	—	40.48	
Total	—	—	40.48	
Other radio telegraphic/ telephonic transmission apparatus				
Venezuela	—	—	138.42	35.70
Total	—	—	138.42	35.70
Radio receivers for vehicles				
United States	.55	—	—	
Total	.55	—	—	
Other radio receivers				
United States	6.05	—	—	
Peru	.32	—	—	
Mexico	—	.35	—	
Total	6.37	.35	—	
Black and white TV sets				
Ecuador	.18	.31	—	
Brazil	—	.30	—	
Total	.18	.61	—	
Color TV sets				
Ecuador	—	2.48	—	
Total	—	2.48	—	
Ferrite aerials parts				
Panama	—	2.00	—	7.76
Total	—	2.00	—	7.76
Cases, cabinets and parts for transmission and reception apparatus				
United States	24.86	—	2.08	15.12
Venezuela	32.99	445.11	619.79	154.46
Ecuador	12.16	4.45	58.44	—
Peru	2.90	.03	—	—
Total	72.91	449.59	680.31	169.58
Other radio— broadcast reception apparatus for transmission and reception apparatus				
Ecuador	17.48	32.18	12.75	.23
Belize	.08	—	—	—
Venezuela	8.20	2.06	—	—
France	—	24.00	—	—
Peru	—	.03	—	—
Total	25.76	58.27	12.75	.23
Insulated electric wire-cable bars and telephone cables				
Aruba	12.99	3.65	13.25	—
Venezuela	233.13	284.15	161.61	13.43
Panama	57.30	92.51	30.70	2.80
Ecuador	777.10	159.54	—	—
Total	1,080.52	539.85	205.56	16.23
Sound recorders				
United States	40.00	—	—	
Total	40.00	—	—	
Other prepared media for sound or similar recording				
United States	30.00	—	—	—
Peru	—	—	5.92	1.27
Venezuela	—	21.07	7.45	—
Total	30.00	21.07	13.37	1.27
Combined totals	1,349.09	1,335.73	1,226.80	270.02

Source: Colombian Department of Statistics (DANE), and International Trade Administration research report.

Table 5.—Colombia: TELECOM Income and services provided, 1980-81

	1980	1981
Telephone service		
Domestic		
Manual and semiautomatic		
Thousands of minutes	182,962	179,841
Growth (percent)	104.4	102.6
Income per minute (US$)	.18	.19
Automatic		
Millions of pulses	43,908	55,858
Growth (percent)	325.4	414.0
Income per minute (US$)	.002	.002
International		
Thousands of minutes	N/A	16,769
Growth (percent)	N/A	270.7
Income per minute (US$)	N/A	4.84
Telegraph		
Traffic (thousand words)	16,856	17,164
Growth (percent)	119.2	121.4
Income per word (US$)	.03	.03
Telex		
Traffic (thousand pulses)	95,220	102,942
Growth (percent)	135.8	146.9
Income per pulse (US$)	.33	.34

Other users.—The manufacturing and banking sectors comprise the second major communications user group. Manufacturing accounts for about 20 percent of Colombia's GNP, with most of the industry concentrated in the nation's four largest metropolitan areas. With industrial production and exports both showing marked upturns and the oil industry enjoying boom conditions, investments in new telecommunications equipment are expected to climb. The banking sector is also expanding rapidly, with over 1,000 bank branches established in the last decade and new banking services introduced to 200 towns.

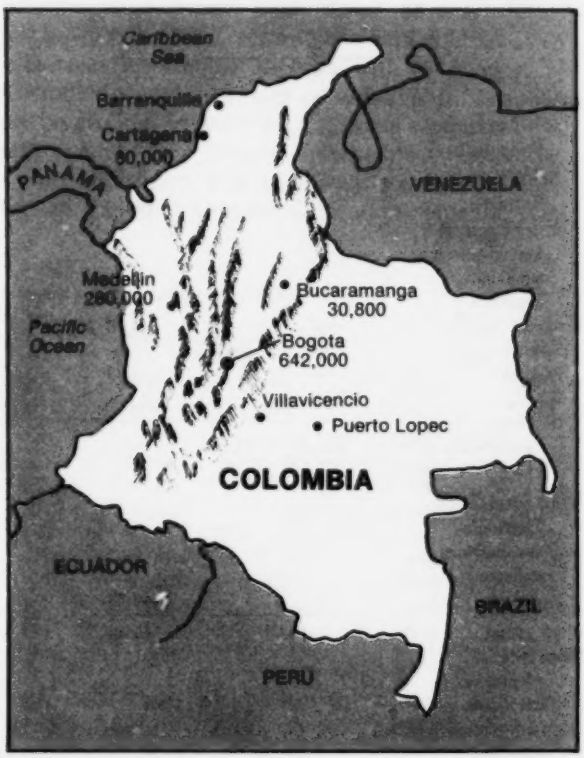
Marketing Practices

Distribution and sales of imported communications equipment are handled primarily by importers, distributors, and agent representatives, but a large percentage of the materials and supplies, as well as a portion of the equipment itself, is imported directly by end-user firms. European and Japanese sellers have boosted sales significantly by maintaining close contact with end users and providing training and demonstrations. Competitive prices are an important determinant in purchasing decisions, but buyers also place high value on quality and service. Decisionmakers sometimes prefer to pay more for a well-known brand with a good reputation for service and spare parts than to obtain an unknown brand at a bargain price.

Regulations for government contracts permit officials to deal with foreign nations only in direct relationship to Colombia's bilateral commercial balance with the country in question. The bidding procedure normally takes 1 to 3 months; contracts do not require prebid financial commitments. To obtain contracts with government or quasi-government agencies, construction or consulting firms must form a joint venture with a domestic firm, with at least 40 percent of the contract value assigned to the local company. If more than 10 workers are hired, at least 80 percent of them must be Colombian nationals, if qualified and available. Occasionally, the Government seeks turnkey contracts. Overseas architectural or engineering firms must be associated with a local company to operate in Colombia. (The IMI report contain extensive information on regulations and other aspects of dealing with the Colombian Government, as well as lists of principal trade associations, publications, and major end users.)

The Government controls imports and exports through the Colombian Institute of Foreign Trade (INCOMEX). In an attempt to improve its balance of trade and control declining reserves, it has revised its import policies, becoming more protectionist. Tariffs on communications equipment range from 8.75 percent to 73.75 percent, with the higher rates for items similar to those produced domestically. In addition to customs duties, communications apparatus is subject to a 10-percent value-added tax. Import

Figure 2
Colombia: Cities With Largest Number of Main Telephones, 1982



Country Total: 1,423,780
Source: AT&T Communications. *The World's Telephones, 1982.*

licenses valid for 3-6 months are required for most communications equipment, and importers report that it is becoming increasingly difficult to get licenses for items similar to those produced locally. Special contracts can be arranged with INCOMEX for duty-free import of equipment destined for export production. Global licenses valid for a year can be obtained for equipment to be used in expanding industrial facilities.

Preferential tariffs apply to members of the Andean Common Market (ANCOM) and the Latin American Integration Association (ALADI). In addition, in the six free trade zones (Barranquilla, Cartagena, Cucuta, Cali, Buenaventura, and Santa Marta), merchandise may enter exempt from import license and tariff requirements. Goods sold in the free port areas of Leticia and on the islands of San Andres and Providencia are also exempt from import duties, although a special consumer tax is currently being levied.

Leading Suppliers

Company	Country	Products
L.M. Ericsson	Sweden	Transmission circuits, local automatic dial systems, switching trunk systems, private telephony
GEC	United Kingdom	Local automatic dial systems
GTE	United States	Private telephony
ITT	United States	Local automatic dial systems, private telephony
Intelsa		Local automatic dial systems
National Panasonic	Japan	Private telephony
NEC	Japan	Transmission circuits, private telephony
Philips	Netherlands	Private telepony
Plessey	United Kingdom	Transmission circuits
Siemens	Germany	Local automatic dial systems, telex equipment, private telephony

Useful Addresses

Embassies

American Embassy
Commercial Section
Calle 38, No. 8-61
Bogota D.E.
tf: 285 12 00
tx: 44843

Embassy of Colombia
2118 Leroy Place, N.W.
Washington, DC 20008
tf: 387-8338

Telecommunications administration

Ministerio de Comunicaciones
Division de Telefonia, Telegrafia y Servicios
Edificio Murillo Toro
Carreras 7a x 8a y Calles 12a x 13a
Bogota D.E.
Attn: Secretario General
tf: 241 55 09
tg: mincomunicaciones bogota
tx: 41249 tele co

PTT

Empresa Nacional de Telecomunicaciones (TELECOM)
Calle 23, No. 13-49, Piso 8
Bogota D.E.
Attn: Presidente
tf: 283 25 71
tg: telecom bogota
tx: 44280 entpr co

Leased lines and data communications

Empresa Nacional de Telecomunicaciones
Division Comercial
Calle 23, No. 13-49 — 7° Piso
Bogota D.E.
tf: 234 43 40
tx: 44293

Television broadcasting

Instituto Nacional de Radio y Television
Centro Administrativo Nacional (CAN)
Avenida Eldorado
Bogota, D.E.
Attn: Director General
tf: 69 02 77
tg: televisora nacional bogota
tx: 44311 inra co

Radio broadcasting

CARACOL (Primere Cadena Radial Colombiana)
Ap. A. 9291 (Av. 19 No. 8-48)
Calle 19 No. 8-48
Bogota D.E.
Attn: Director General
tf: 282 20 88

Technical standards

Instituto Colombiano de Normas Tecnicas (ICONTEC)
Carrera 37 No. 52-95
Casilla Postal 14237
Bogota D.E.
tf: 255 70 55
tg: icontec
tx: 45596 josra co

Colombia: Basic Economic Indicators

Population:	29 million (1984)	Imports c.i.f:	$3.98 billion (1984)
Area:	1,139,600 sq. km.	U.S. share:	35%
Administrative units:	22 departments, 3 intendants, 5 commissariats, Bogota Special District	Major trading partners:	United States, Germany, Netherlands, Japan, United Kingdom, Ecuador
GDP:	$39.4 billion (1984)	Exchange rate:	133.22 pesos = US$1 (1985)
Contributions to GDP:	Services 42% (1982)	Current account balance:	$1,870 million (1984)
	Industry 31%	International reserves:	$1,887 million (1984)
	Agriculture 26%	Labor force:	9 million (1982)
Per capital income:	$1,358 (1983)	Unemployment:	14.5% (1984)
Inflation rate:	18% (1984)		
Exports f.o.b.:	$3.66 billion (1984)		
U.S. share:	43%		

Colombian local direct-dial network: Installed capacity and expansion plans

Telephone companies	Installed capacity as of Dec. 1982	Installed capacity as of Dec. 1983	Contracted as of June 19, 1983	Awarded as of June 19, 1984	Expansion plans
Empresa Nacional de Telecomunicaciones (TELECOM)	135,550	145,550	27,800		115,650
Empresa de Telefonos de Bogota (ETB)	700,000	710,000	203,000		242,000
Empresas Publicas de Medellin (EPM)	303,600	310,000	132,400		130,000
Empresas Municipales de Cali (EMC)	114,100	114,100	100,000	100,000	
Empresa Municipal de Telefonos de Barranquilla (EMT)	80,000	80,000	50,000	50,000	
Empresas Publicas de Bucaramanga (EPB)	48,800	48,000	20,000		
Empresas Publicas de Pereira	25,750	25,750	19,600	14,000	
Empresas Publicas de Manizales	21,500	24,500	8,000	11,000	
Empresa de Telecomunicaciones de Cartagena (TeleCartagena)	23,000	23,000	15,000		
Empresas Publicas Municipales de Palmira	10,550	10,550	3,000		
Empresas Departamentales de Antioquia	9,250	18,200	3,520	7,532	10,100
Compania Telefonica S. A. (TeleHuila)	18,600	18,600			
Empresa de Telecomunicaciones de Armenia (TeleArmenia)	15,500	15,500			10,000
Empresas Municipales de Buga	7,000	7,000	3,000		
Empresa de Telecomunicaciones del Tolima (TeleTolima)	7,000	7,000	3,000		
Empresas Municipales de Cartago	6,400	6,400	3,600		
Empresa de Telefonos de Girardot	5,000	5,000	2,000		3,000
Empresas Publicas de Santa Marta	5,000	5,000	2,000		
Telefonica Municipal de Popayan	4,000	4,000	5,000		
Empresa de Telecomunicaciones de Narino (TeleNarino)	4,000	4,000	6,000		4,000
Empresa de Telecomunicaciones de Tulua (TeleTulua)	2,800	2,800			10,000
Empresas Publicas de Calarca	2,000	4,500			
Telefonica Municipal de Chinchina	2,000	2,000			800
Telefonica Municipal de El Espinal	1,680	1,680	700	950	
Empresas Publicas Municipales de Santa Rosa de Cabal	1,500	1,500			1,000
Empresa Municipal de Telefonos de Ipiales	1,000	1,400			
Empresa Municipal de Garzon	1,000	1,000	400		
Empresa Municipal de Telefonos de Armero	1,060	1,060	1,000		
Empresas Publicas Municipales de Sevilla	1,060	1,060			
Empresa Departmental de Telefonos del Caqueta	1,000	1,400			600
Empresas Municipales de Riosucio	1,000	1,000			
Empresas Publicas de Honda	980	980			1,000
Empresas Publicas Municipales de Zarzal	600	600			
Telefonico Municipal de Aguadas	500	500			
Telefonica Municipal de Maicao	1,200	1,200	500		
Totals	1,563,980	1,604,830	609,520	183,482	528,150

Source: Ministry of Communications

Available reports on Telecommunications Equipment Markets

These reports are currently available from Export Promotion Services, at the address listed in the Additional Information box:

International Market Research
(full research reports)

IMR/TCE/602/83	Australia (Feb 83)	$100	IMR/TCR/518/84	Kuwait (Mar 84)	$100
IMR/TCE/122/85	Canada (Jan 85)	120	IMR/TCE/557/85	Malaysia (Jun 85)	80
IMR/TCE/570/84	China (Jan 84)	80	IMR/TCE/201/83	Mexico (Feb 83)	120
IMR/TCE/729/85	Egypt (Jul 85)	100	IMR/TCE/421/82	Netherlands (Nov 82)	120
IMR/TCE/427/85	France (Sep 85)	120	IMR/TCE/565/84	Philippines (May 84)	120
IMR/TCE/428/84	Germany (Mar 84)	120	IMR/TCE/517/84	Saudi Arabia (Jul 84)	120
IMR/TCE/560/85	Indonesia (Apr 85)	100	IMR/TCE/201/83	Spain (Oct 83)	120
IMR/TCE/505/83	Iraq (Apr 83)	100	IMR/TCE/421/84	Thailand (Feb 84)	100
IMR/TCE/508/85	Israel (Feb 85)	100	IMR/TCE/520/84	U.A.E. (Apr 84)	100
IMR/TCE/475/85	Italy (Jun 85)	100	IMR/TCE/412/85	United Kingdom (Jan 85)	100
			IMR/TCE/307/85	Venezuela (Aug 85)	100

Country Market Surveys
(published summary reports—$10 each)

CMS/TCE/721/82	Algeria (Apr 82)	CMS/TCE/588/83	Japan (Apr 83)
CMS/TCE/357/84	Argentina (Feb 84)	CMS/TCE/580/81	Korea (Sep 81)
CMS/TCE/602/83	Australia (Aug 83)	CMS/TCE/518/85	Kuwait (Apr 85)
CMS/TCE/351/82	Brazil (Dec 82)	CMS/TCE/557/81	Malaysia (Apr 81)
CMS/TCE/337/83	Chile (Aug 83)	CMS/TCE/201/83	Mexico (Jun 83)
CMS/TCE/570/85	China (Apr 85)	CMS/TCE/421/83	Netherlands (Jun 83)
CMS/TCE/301/85	Colombia (Aug 85)	CMS/TCE/753/82	Nigeria (Dec 82)
CMS/TCE/409/83	Denmark (Nov 83)	CMS/TCE/403/83	Norway (May 83)
CMS/TCE/729/81	Egypt (Jul 81)	CMS/TCE/535/85	Pakistan (Jul 85)
CMS/TCE/427/85	France (Jul 85)	CMS/TCE/565/85	Philippines (Apr 85)
CMS/TCE/428/85	Germany (Apr 85)	CMS/TCE/517/81	Saudi Arabia (Apr 85)
CMS/TCE/484/83	Greece (Apr 83)	CMS/TCE/559/83	Singapore (Feb 83)
CMS/TCE/205/83	Guatemala (May 83)	CMS/TCE/791/82	South Africa (Mar 82)
CMS/TCE/582/81	Hong Kong (Jan 81)	CMS/TCE/469/84	Spain (Jul 84)
CMS/TCE/533/81	India (Feb 81)	CMS/TCE/401/82	Sweden (Dec 82)
CMS/TCE/560/83	Indonesia (Apr 83)	CMS/TCE/549/85	Thailand (Apr 85)
CMS/TCE/505/83	Iraq (Sep 83)	CMS/TCE/489/81	Turkey (Oct 81)
CMS/TCE/508/82	Israel (Jun 82)	CMS/TCE/520/85	U.A.E. (Apr 85)
CMS/TCE/475/83	Italy (Jun 83)	CMS/TCE/412/82	United Kingdom (Dec 82)
CMS/TCE/748/81	Ivory Coast (Apr 81)	CMS/TCE/307/81	Venezuela (Feb 81)
		CMS/TCE/796/82	Zimbabwe (Dec 82)

International Marketing Information
(U.S. embassy reports)

IMI/TCE/721/84	Algeria (Aug 84)	$15	IMI/TCE/401/83	Sweden (May 83)	$25
IMI/TCE/301/84	Colombia (Dec 84)	60	IMI/TCE/583/83	Taiwan (Aug 83)	25
IMI/TCE/428/83	Germany (May 83)	25	-		

Reference Guides
(address and contact lists)

IMI/TCE/XX1/85	Telecom Administrators and Operators Worldwide (Feb 85)	$25	IMI/TCE/XX3/85	Telecom Satellite Users and Research Organizations Worldwide (Feb 85)	$20
IMI/TCE/XX2/85	Frequency Allocation Offices Worldwide (Feb 85)	15	IMI/XXX/XX1/85	Standards Organizations Worldwide (Feb 85)	20

Additional Information

The project officer responsible for Country Market Surveys on telecommunications equipment is:

Hayden M. Wetzel
ITA/MAB, HCHB 2012
U.S. Department of Commerce
Washington, DC 20230
Telephone: (202) 377-4493

Current information on marketing conditions in Colombia is available from:

Colombia Country Specialist
ITA/IEP, HCHB 3038
U.S. Department of Commmerce
Washington, DC 20230
Telephhone: (202) 377-4941

Department sponsored trade shows and other promotional vehicles for telecommunications equipment are handled by:

Theresa Rettig
ITA/TD, HCHB 1015B
U.S. Department of Commerce
Washington, DC 20230
Telephone: (202) 377-2952

For a free copy of the newest catalog of Market Research Division reports, which lists all Country Market Surveys and selected International Market Research reports, please write to:

International Market Research Services
ITA/EPS, HCHB 1324
P.O. Box 14207
U.S. Department of Commerce
Washington, DC 20044
Telephone: (202) 377-2665

READEX
FICHE